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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,516	12/28/2005	Masahiro Goto	CU-4639 RJS	8063

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LADAS & PARRY LLP
224 SOUTH MICHIGAN AVENUE
SUITE 1600
CHICAGO, IL 60604

EXAMINER

NGUYEN, THONG Q

ART UNIT	PAPER NUMBER
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2872

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/562,516	Applicant(s) GOTO, MASAHIRO	
	Examiner Thong Q. Nguyen	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/9/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/9/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the Pre-amendment filed on 2/9/2006. It is noted that in the pre-amendment, applicant has amended claims 1-17. There is not any claim being added or canceled from the application. The pending claims 1-17 are examined in this Office action.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings contained fifteen sheets of figures 1-8, 9A-C, and 10-15 were received on 12/28/05. These drawings are objected by the examiner for the following reasons.

4. Figure 15 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See present specification in pages 2 and 7. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: In particular, each of a) the references "2" and "4" stated in the specification in page 31; b) the reference "S90" stated in the specification in page 32; and c) the reference "114" stated in the specification in page 33 is not shown in at least one figure. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. The specification is objected to because it does not have a Summary of the invention. Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a

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utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

8. The disclosure is objected to because of the following informalities: a) Pages 2-5:

The reference of the inventive device to the claims as provided in pages 2-5 is improper. Applicant should delete any terms/phrases referred to the claims appeared in pages 2-5; b) Page 7: line 8, "FIG. 9 is a view showing various shape modes" should be changed to --FIGS. 9A-C show various shape modes--; c) Page 9: line 18, "0₁" should

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be changed to --0₁--; and on line 23, "a imaging" should be changed to --an imaging-- .

There are still some grammatical and idiomatic errors in the specification. Applicant should carefully proofread the specification. Appropriate correction is required.

Claim Objections

9. The claims 1-5 are objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

10. Claims 1, 5, 8 and 13 are objected to because of the following informalities. Appropriate correction is required.

a) In claim 1: on lines 3-5, the phrase thereof "a wedge-shaped portion between the lens portions adjacent to each other is filled with the same material as the lens portions or with a material different from the lens portion" has at least one grammatical error. Should the mentioned phrase be changed to --a wedge-shaped portion between the lens portions adjacent to each other is filled with the same material as that of the lens portions or with a material different from that of the lens portion-- to avoid the grammatical error?

Second, the feature thereof "the lens portion" recited on each of lines 4, 5 and 9 lacks a proper antecedent basis. Applicant should note that the claim recites

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"lens portions" on line 2. As a result, it is unclear which "lens portion" applicant refers to on each of lines 4, 5 and 9. Should the terms "lens portion" be changed to --lens portions--?

b) In claim 5: on lines 4-5, the feature "the normal line" lacks a proper antecedent basis. Should the mentioned feature be changed to --a normal line--? (see the similar use of the claim language in present claim 2).

c) In claim 8: on lines 2-3, the feature thereof "the slope portion has a curved cross-sectional shape and/or a polygonal-line cross-section shape" is not matched with the teaching provided in the specification. Applicant should note that the specification discloses that the shape of the slope portion is a curved or a straight line. See also figures 9A-C. Should the term "and/or" in the mentioned feature be changed to --or-- to avoid the problem of 35 USC 112, second paragraph?

d) In claim 13: on lines 2-3, applicant should provide a complete term or a definition for each terms thereof "AR", "AS" and "AG".

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

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from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-2, 6-11, 13 and 14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 and 10-12 of copending Application No. 11/281,004. Although the conflicting claims are not identical, they are not patentably distinct from each other because the features recited in each of claims 1-2, 6-11, 13 and 14 are readable from the features recited in the claims 1-7 and 10-12 of the copending application No. 11/281,004.

In particular, the features recited in present claims 1 and 9 are readable from claims 1 and 4 of the copending case; the feature of present claim 2 is readable in claim 1 of the copending case; the features of present claim 6 are readable in claim 2 of the copending case; the features of present claim 7 are readable from claim 3 of the copending case; the features of present claim 8 are readable from claim 5 of the copending case; the features of present claim 10 are readable from claims 1 and 6 of the copending case; the features of present claim 11 are readable from claim 7 of the copending case; the features of present claim 13 are readable from claim 10 of the copending case; and the features of present claim 14 are readable from claims 11-12 of the copending case.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-17, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Masahiro (Japanese reference No. 2003-66206 (hereafter Masahiro '626) in view of Cohen (U.S. Patent No. 4,621,898).

Masahiro discloses an optical device. The device as described in sections [0053]-[0054] and shown in fig. 1 comprises a fresnel lens (104), a first view

angle control sheet (103), a second view angle control sheet (102) and a touch sensor (101) arranged in that order from a screen of an liquid crystal display (105). From the descriptions provided in sections [0006]-[0012], [0056] and [0100], each of the view angle control sheet (103, 104) comprises the following structures: a) a first transparent base element (1), a second transparent base element (3) and a lens sheet (2) sandwiched between the first and second elements (1,3); b) the lens sheet (2) comprises lens portions having trapezoidal shapes in cross-sections and arranged at predetermined spaces from each others, and wedge-shaped portions having isosceles triangle shapes in cross-sections which wedge-shaped portions are arranged between the lens portions; c) the wedge-shaped portion has a refractive index which is smaller than the refractive index of the lens portion; d) each of the wedge-shaped portions comprises a bottom surface (7) facing the element (1) and two slopes formed an angle in the range of 5 to 15 degrees with respect to a normal line of the a light beam outgoing plane, see sections [0037], [0056], and [0074]; e) each of the wedge-shaped portions contains light absorbing (5) mixed in a resin base substrate (6) of low refractive index; f) in section [0074], the refractive indexes of the materials of the lens portion and the wedge-shaped portion is in the range of 0.23 to 0.996 which covers the range of 0.8 to 0.98, and the angle θ is in the range of 5 to 15 degrees and thus it is expected that the structure of the lens portion and the wedge-shaped portions provided in the mentioned section [0074] satisfies the conditions as recited in the present claims 2-5. See also In re

Wertheim, supra 541 F. 2d 257, 191 USPQ 90 (CCPA 1976); In re Titanium Metals Corporation of America, supra 227 USPQ 773 (Fed. Cir. 1985); g) The wedge-shaped portions can have its two slopes following a curved contour or a straight line, see sections [0030], [0076] and figs. 7; h) the use of light absorbing particles mixed inside a resin substrate in the volume and the relationship between the dimension of the particle and the width of the bottom surface of each wedge-shaped portion as described in sections [0014]-[0016] and [0095] satisfy the condition governing the relationship between the two as recited in present claims 11-12 and the crosswise stripe as recited in present claim 15; i) the use of antireflection coating, antistatic coating, ... is disclosed in sections [0044], [0053] and [0066]; and j) the arrangement of two control sheets in a mutually perpendicular arrangement is disclosed in section [0006] and fig. 1. Regarding to the feature that the width of the bottom surface is not more than $1/1.5$ of a size of a pixel as recited in present claim 17, such a feature is within the level of one skilled in the art to control the size/dimension of the bottom surface of the wedge-shaped portion with respect to the size of a pixel in a display device for the purpose of providing an optimum result in quality of the image display.

Regarding to the feature that one of the angle formed by a slope with a normal line is larger than the angle formed by the other slope with the normal line as recited in present claim 7, such a feature is not critical to the invention because applicant has admitted that the slopes of the wedge-shaped portion are oriented

in a similar fashion. Such a use of a wedge-shaped portion in the form of an isosceles configuration, i.e., the angles formed by the slopes with the normal line are equal, is indeed claimed as can be seen in present claim 6. Further, it is within the level of one skilled in the art to select individual slope angles based on the incident light to control the direction of light output from the wedge-shaped portion to a viewer.

The only feature missing from the light control sheet provided by Masahiro is that he does not explicitly disclose that the leading edge of the wedge-shaped portion faces to a viewer side and the bottom surface of the wedge-shaped portion faces the image side as claimed. In the system as provided by Masahiro '206, the leading edge of the wedge-shaped portion faces the image side and the bottom surface of the wedge-shaped portion faces the viewer side. See fig. 1, for example.

However, it was decided in the Courts that a rearrangement or a reversal of the components in an optical device involves only routine skill in the art. In re Japikse, 86 USPQ 70; In re Einstein, 8 USPQ 167. Further, an arrangement of a light control sheet having lens portion having trapezoidal shapes in cross-sections and arranged at predetermined spaces from each others, and wedge-shaped portions having isosceles triangle shapes in cross-sections which wedge-shaped portions are arranged between the lens portions wherein the leading edges of the wedge-shaped portions face the viewer side is known to one skilled in the art as can be seen in the optical device provided by Cohen. In particular,

Cohen discloses a light control sheet (15) having lens portions portion having trapezoidal shapes in cross-sections and arranged at predetermined spaces from each others, and wedge-shaped portions (15) having isosceles triangle shapes in cross-sections which wedge-shaped portions are arranged between the lens portions and grooves and contained light absorbing materials (18), see column 3, lines 4-23. Cohen teaches that the leading edges of the wedge-shaped portions can be arranged to face an image side or a viewer side. See column 4, lines 44-50 and fig. 3. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the view angle control sheet in the optical system provided by Masahiro by rearranging the sheet so that the leading edges of the wedge-shaped portions face the viewer side as suggested by Cohen for the purpose of meeting a particular application.

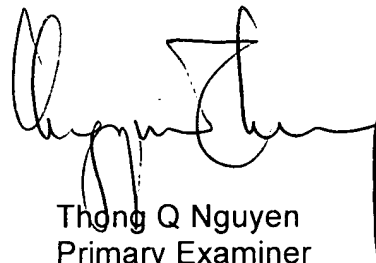
Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thong Q Nguyen
Primary Examiner
Art Unit 2872
